

1 What is claimed is:

2 1. A method of operating a peripheral data storage system for use with a host
3 system configured to perform scheduled backup operations to the peripheral data storage
4 system, the peripheral data storage system comprising a data storage device, a data storage
5 system controller, a user-actuated backup signaling subsystem, a user-notifying device
6 comprising first and second notifying states, and a data storage controller host interface
7 adapted for communication with the host system, the method comprising:

8 receiving a first signal from the user-actuated backup signaling subsystem;
9 communicating the first signal to the host system via the host interface;
10 receiving an acknowledgement signal from the host system in response to
11 the communicating; and

12 switching the user-notifying device between the first notifying state and
13 the second notifying state in response to the received acknowledgement signal.

1 2. The method of claim 1, wherein the user-notifying device comprises a third
2 notifying state and wherein the method further comprising:

3 switching the user-notifying device between the first notifying state and the
4 third notifying state following the receipt of the first signal; and
5 switching the user-notifying device between the third notifying state and the
6 second notifying state following the receipt of the acknowledgement signal.

1 3. The method of claim 2, wherein the user-notifying device comprises a user-
2 visible display device having first, second and third display states, and adapted to display
3 the first, second and third display states in the form of a first, a second and a third
4 displaying of emitted light.

1 4. The method of claim 3, wherein the third displaying of emitted light
2 comprises a flashing pattern.

1 5. The method of claim 1, wherein the user-notifying device comprises a user-
2 audible audio device having first, second and third audible states, and adapted to project first,
3 second and third audible tones corresponding to the first, second and third audible states.

1 6. The method of claim 3, wherein the user-visible display device comprises
2 an alpha-numeric display having first, second and third display states, and adapted to

3 display the first, second and third display states in the form of a first, a second and a third
4 displaying of alpha-numeric characters.

1 7. The method of claim 1, wherein the host system is configured via a user-
2 programmable scheduling software.

1 8. The method of claim 1, further comprising:
2 receiving a second signal from the user-actuated backup signaling subsystem;
3 communicating the second signal to the host system via the host interface;
4 receiving data from the host system for backing up to the data storage device
5 in response to the communicating; and
6 storing the received data in the data storage device.

1 9. The method of claim 8, further comprising:
2 acknowledging the receipt of the second signal via the user-notifying device
3 prior to the communicating.

1 10. The method of claim 8, wherein the communicating further comprises:
2 receiving an acknowledgment from the host system following the receipt
3 of the second signal; and
4 acknowledging the receipt of the acknowledgment via the user-notifying device.

1 11. The method of claim 8, wherein the backing up of data to the peripheral data
2 storage system is from a host data storage system.

1 12. The method of claim 8, wherein the backing up of data to the peripheral data
2 storage system is from a removable data storage system adapted for communication with at
3 least one of the host system and the peripheral data storage system.

1 13. The method of claim 12, wherein the removable data storage system
2 comprises a removable memory card.

1 14. The method of claim 8, wherein the user-actuated backup signaling subsystem
2 comprises a first electro-mechanical switch and a second electro-mechanical switch.

1 15. The method of claim 14, wherein the first electro-mechanical switch
2 comprises a first button adapted to receive a first user-inputted request and wherein the
3 user-actuated backup signaling subsystem is adapted to generate the first signal based on
4 the first user-inputted request.

1 16. The method of claim 14, wherein the second electro-mechanical switch
2 comprises a second button adapted to receive a second user-inputted request and wherein
3 the user-actuated backup signaling subsystem is adapted to generate the second signal
4 based on the second user-inputted request.

1 17. The method of claim 1, wherein the data storage controller host interface is
2 adapted for communication with the host via at least one of a universal serial bus (USB)
3 cable and a Firewire™ cable.

1 18. The method of claim 1, wherein the peripheral data storage system
2 comprises a disk drive system and wherein the data storage device is a disk drive.

1 19. The method of claim 1, further comprising:
2 receiving a third signal from the user-actuated backup signaling subsystem;
3 communicating the third signal to the host system via the host interface;
4 transmitting data from the peripheral data storage system to the host system
5 for restoring of data to the host system in response to the communicating; and
6 storing the transmitted data in the host system.

1 20. The method of claim 19, wherein the peripheral data storage system
2 comprises a third electro-mechanical switch adapted to receive a third user-inputted
3 request and wherein the user-actuated backup signaling subsystem is adapted to generate
4 the third signal based on the third user-inputted request

- 1 21. A method for performing backup operations from a host system, the back
2 up operations corresponding to backing up of data to a peripheral data storage system in
3 communication with the host system, the method comprising:
4 receiving in the host system a first request from the peripheral data storage
5 system for performing a task corresponding to a host-scheduled backup operation
6 for a scheduled backing up of data to the peripheral data storage system;
7 completing the task by the host system based on the received first request; and
8 notifying the peripheral data storage system of the completion of the task by
9 the host system.
- 1 22. The method of claim 21, wherein the task comprises an enabling of the host-
2 scheduled backup operation.
- 1 23. The method of claim 21, wherein the task comprises a disabling of the host-
2 scheduled backup operation.
- 1 24. The method of claim 21, wherein the completing further comprises:
2 determining a state of the host-scheduled backup operation subsequent to
3 the receipt of the first request;
4 enabling the host-scheduled backup operation if the host-scheduled backup
5 operation is in a disabled state; else
6 disabling the host-scheduled backup operation if the host-scheduled backup
7 operation is in an enabled state.
- 1 25. The method of claim 21, further comprising:
2 notifying the peripheral data storage system of the receipt of the first request
3 prior to the completing.
- 1 26. The method of claim 25, wherein the notifying the peripheral data storage
2 system of the receipt of the first request prior to the completing comprises providing a first
3 signal to the peripheral data storage system.
- 1 27. The method of claim 24, wherein the notifying the peripheral data storage
2 system of the completion of the task by the host system further comprises:
3 providing a third signal to the user by the data storage controller host
4 interface if the scheduled backup operation is enabled.

1 28. The method of claim 24, wherein the notifying the peripheral data storage
2 system of the completion of the task by the host system further comprises:

3 providing a fourth signal to the user by the data storage controller host
4 interface if the scheduled backup operation is disabled.

1 29. The method of claim 21, further comprising:

2 configuring the host-scheduled backup operations in the host system prior
3 to the receipt of the first request.

1 30. The method of claim 21, the completing further comprising:

2 determining if the host-scheduled backup operations was configured in the
3 host system prior to the receipt of the first request; and

4 configuring in the host system the host-scheduled backup operations if the host-
5 scheduled backup operations was not configured prior to the receipt of the first request.

1 31. The method of claim 30, wherein configuring the host-scheduled backup
2 operations further comprises:

3 selecting the peripheral data storage system for the host-scheduled backup
4 operations of host data in a host data storage system;

5 selecting a portion of host data for the host-scheduled backup operations of
6 the selected portion to the selected peripheral data storage system; and

7 selecting a frequency of the host-scheduled backup operation for the
8 selected portion of host data to the selected peripheral data storage system.

1 32. The method of claim 30, wherein the configuring the host-scheduled
2 backup operation further comprises:

3 reconfiguring the previously configured host-scheduled backup operations
4 subsequent to the receipt of the first request.

1 33. The method of claim 21, further comprising:

2 receiving in the host system a second request from the peripheral data
3 storage system for performing an on-demand backing up of pre-selected data to
4 the peripheral data storage system; and

5 transmitting the pre-selected data to the peripheral data storage system.

1 34. The method of claim 33, further comprising:

2 notifying the peripheral data storage system of the receipt of the second
3 request prior to the transmitting.

1 35. The method of claim 33, further comprising:

2 configuring the on-demand backing up of data to the peripheral data storage
3 system in the host system prior to the receipt of the second backup request.

1 36. The method of claim 33, the further comprising:

2 determining if the on-demand backing up of data to the peripheral data storage
3 system was configured in the host system prior to the receipt of the second request; and
4 configuring in the host system the on-demand backing up of data to the
5 peripheral data storage system if the on-demand backing up of data to the peripheral
6 data storage system was not configured prior to the receipt of the second request.

1 37. The method of claim 36, wherein configuring the on-demand backing up
2 of data to the peripheral data storage system further comprises:

3 selecting the peripheral data storage system for the on-demand backing up
4 of data to the selected peripheral data storage system;

5 selecting at least one of a host data storage system and a removable data storage
6 system for on-demand backing up of data to the peripheral data storage system; and

7 selecting a portion of data in the selected data storage system for on-demand
8 backing up of data to the selected peripheral data storage system.

1 38. The method of claim 36, wherein the configuring the on-demand backing
2 up of data to the peripheral data storage system further comprises:

3 reconfiguring the previously configured on-demand backing up of data to
4 the peripheral data storage system subsequent to the receipt of the second request.

1 39. The method of claim 37, wherein the removable data storage system
2 comprises a removable memory card.

1 40. The method of claim 36, wherein the configuring further comprises
2 configuring the host system to create in the peripheral data storage system a different
3 backup version for each backing up of data from the removable data storage system.

1 41. The method of claim 34, wherein the notifying the peripheral data storage
2 system of the receipt of the second request further comprises providing a second signal to
3 the peripheral data storage system.

1 42. The method of claim 21, wherein the host system is in communication with
2 a plurality of peripheral data storage systems each having a corresponding host-scheduled
3 backup operation, and wherein the first request is received from a first peripheral data
4 storage system for performing a first task corresponding to a host-scheduled backup
5 operation for a scheduled backing up of data to the first peripheral data storage system.

1 43. The method of claim 42, further comprising:
2 determining the first request is received from the first peripheral data
3 storage system.

1 44. The method of claim 43, wherein the completing further comprises:
2 completing the first task by the host system based on the received first request.

1 45. The method of claim 44, wherein the notifying further comprises:
2 notifying the first peripheral data storage system of the completion of the
3 first task by the host system.

1 46. The method of claim 42, further comprising:
2 configuring each host-scheduled backup operation corresponding to each
3 peripheral data storage system in the host system prior to the receipt of the first request.

1 47. The method of claim 46, wherein configuring each host-scheduled backup
2 operation corresponding to each peripheral data storage system further comprises:
3 selecting a peripheral data storage system for a host-scheduled backup
4 operation of host data in the host data storage system;
5 selecting a portion of the host data for the host-scheduled backup operation
6 to backup to the selected peripheral data storage system; and
7 selecting a frequency of the host-scheduled backup operation for backing up
8 of the selected portion of host data to the selected peripheral data storage system.

1 48. The method of claim 33, wherein the host system is in communication with
2 a plurality of peripheral data storage systems, and wherein the second request is received
3 from a first peripheral data storage system for performing a first on-demand backing up of
4 data to the first peripheral data storage system.

1 49. The method of claim 48, further comprising:
2 determining the second request is received from the first peripheral data
3 storage system.

- 1 50. The method of claim 49, wherein the transmitting further comprises:
2 transmitting the pre-selected data to the first peripheral data storage system.
- 1 51. The method of claim 48, further comprising:
2 configuring each on-demand backing up of data corresponding to each peripheral
3 data storage system in the host system prior to the receipt of the second request.
- 1 52. The method of claim 51, wherein the configuring each on-demand backing up of
2 data corresponding to each peripheral data storage system in the host system further comprises:
3 selecting a peripheral data storage system for an on-demand backing up of
4 data to the peripheral data storage system;
5 selecting at least one of a host data storage system and a removable data storage
6 system for backing up of data to the selected peripheral data storage system; and
7 selecting a portion of data in the selected data storage system for backing up
8 to the selected peripheral data storage system.
- 1 53. The method of claim 21, wherein the host system comprises a primary
2 host system in communication with a plurality of secondary host systems, and wherein
3 the first request is received in the primary host system from the peripheral data storage
4 system for performing a second task corresponding to a host-scheduled backup operation
5 for a scheduled backing up of data from the primary host system and the plurality of
6 secondary host systems to the peripheral data storage system.
- 1 54. The method of claim 53, further comprising:
2 configuring each host-scheduled backup operation corresponding to the
3 primary host system and each of the secondary host systems in the primary host
4 system prior to the receipt of the first request.
- 1 55. The method of claim 54, wherein configuring each host-scheduled backup
2 operation corresponding to the primary host system and each of the secondary host
3 systems further comprises:
4 selecting a secondary host system for a host-scheduled backup operation of
5 the selected secondary host system data in the host data storage system;
6 selecting a portion of selected secondary host system data for the host-
7 scheduled backup operation to backup to the peripheral data storage system; and

8 selecting a frequency of the host-scheduled backup operation for backing
9 up of the selected portion of selected secondary host system data to the peripheral
10 data storage system.

1 56. The method of claim 32, wherein the host system comprises a primary
2 host system in communication with a plurality of secondary host systems, and wherein
3 the second request is received in the primary host system from the peripheral data storage
4 system for performing an on-demand backing up of data from the primary host system
5 and the plurality of secondary host systems to the peripheral data storage system.

1 57. The method of claim 56, further comprising:
2 configuring each on-demand backing up of data corresponding to the
3 primary host system and each of the secondary host systems in the primary host
4 system prior to the receipt of the second request.

1 58. The method of claim 57, wherein the configuring each on-demand backing
2 up of data corresponding to the primary host system and each of the secondary host
3 systems in the primary host system further comprises:

4 selecting a secondary host system for on-demand backing up of data ;
5 selecting at least one of a secondary host data storage system and a
6 secondary removable data storage system for on-demand backing up of data to the
7 peripheral data storage system; and
8 selecting a portion of data in the selected secondary data storage system for on-demand
9 backing up to the peripheral data storage system.